

# National Telecommunications and Information Administration

## **Mission Statement**

The National Telecommunications and Information Administration (NTIA) advises the President on domestic and international communications policy, manages the federal government's use of the radio frequency spectrum, and performs research in telecommunications sciences.

New telecommunications and information technologies are crucial to promoting America's economic growth and our nation's social well being. The telecommunications and information sector has become a major driver for this country's economic growth. Developments in this sector affect every American to some extent, and they are expected to continue. New technologies will shape our economy even more significantly in this century, particularly with the continued international growth of the Internet and e-commerce.

With the Secretary of Commerce, NTIA's policy efforts will continue to address impediments to the development of innovative telecommunications services by the private sector. NTIA's spectrum management and cutting-edge research activities also promote innovative technologies and uses of radio frequency spectrum resources for affordable, alternative communications services. Facilitating broadband deployment is a major piece of this agenda. This promising technology has the potential to revolutionize e-commerce, educational opportunities, and health care. Another challenge for NTIA is to find spectrum that might be made available for next generation commercial mobile services. NTIA's Public Telecommunications Facilities Program grants help maintain the reach of public broadcasting infrastructure and support its transition to the digital age.

NTIA's major program areas--integrated domestic and international policy, spectrum management, and technical research--keep promotion of the benefits of competition and universal access as a primary strategic planning goal. The combined technical and policy expertise of the agency helps enable the United States to continue its lead in this integral part of global competitiveness.

## **Priorities**

NTIA's goals define the agency's priority efforts:

• Promote open markets and encourage competition--through its domestic policy activities, NTIA is emphasizing the implementation of the Telecommunications Act of 1996 as Congress intended, opening the door to increased competition at both the long-distance and local level for the long-term benefit of both consumers and industry. As telecommunications technologies converge, NTIA is analyzing and advocating the appropriate regulatory – or deregulatory – policies. Broadband services deployment, e-commerce, and Internet management issues are examples of the issues that NTIA is addressing. Internationally, NTIA is promoting procompetitive U.S. policies, including a hemispheric trade zone, regulatory

- reform, and technical policies related to advanced technologies and the Internet. These activities will improve the international competitiveness of the U.S. telecommunications and information industry and the ability of U.S. businesses and consumers to have access to high-quality, reasonably priced international services.
- Ensure that the spectrum allocation provides the greatest benefit to all people--the priorities under this goal include (1) identifying and supporting new wireless technologies with innovative proposals for the benefit of both federal and private-sector users; (2) promoting market-based incentives for efficiently deploying new technologies and addressing consumer needs; (3) providing 53 federal agencies with the radio frequency spectrum needed to support their missions for national defense, law enforcement and security, air traffic control, national resource management, and other public safety services; (4) developing plans and policies to use the spectrum effectively and efficiently; (5) satisfying the United States' future spectrum needs globally through participation with 190 other countries in the International Telecommunication Union in establishing treaty agreements through the world radio-communication conference process; (6) and improving the understanding of radio-wave transmission to enhance spectrum utilization and the performance of radio-communications systems through telecommunications research and engineering. NTIA will be undertaking a thorough review of spectrum management principles and processes to better address these priorities.
- Advance the public interest in telecommunications, mass media, and information--market-based principles, competition, analysis of perceived shortcomings of market results, and taking appropriate actions are priority issues where NTIA's expertise will make a difference. NTIA will also help to ensure protection of critical telecommunications and information infrastructure.
- Promote the availability and sources of advanced telecommunications and information services--access to broadband technology is a critical next step in the evolution of advanced telecommunications and information services. Widespread deployment of broadband services will significantly enhance U.S. economic well-being. NTIA will influence developments by providing solutions to remove impediments to broadband deployment and assisting public broadcasters in using digital technologies to improve the public broadcasting infrastructure and expand services to the public. NTIA helped create the U.S. positions on ecommerce and the Internet and now advocates these positions abroad. In addition, largely through NTIA's efforts, the Department of Commerce has transferred the responsibility for managing the Internet Domain Name System to a new corporation, making the domain name registration system competitive. NTIA will continue its oversight of Internet technical management and domain name issues.

## **FY 2003 Program Changes**

#### **Salaries and Expenses**

		Base		e/Decrease
	FTE	Amount	FTE	Amount
Spectrum Management Reform	24	\$4,216	+1	+\$285

NTIA will change the process for managing radio frequency spectrum to achieve more efficient distributions among marketplace, public interest, and government activities and to accommodate the demands of new and emerging technologies. NTIA proposes a thorough planning process to examine and recommend the structure for managing spectrum in an environment where private sector demand is expanding; the federal needs for national defense, public safety, and transportation are growing; and the need to coordinate usage with the rest of the world is more important than ever. This request will be matched with \$1.1 million in reimbursements from the federal agencies that use spectrum.

		Base	Increase/Decrease	
	FTE	Amount	FTE	Amount
Paperless System for Spectrum Policy	24	\$4,216	+1	+\$340

To meet increasing demand for federal wireless communication systems and services, most notably for public safety requirements within the reduced spectrum resources available, NTIA will establish a paperless system for spectrum issue resolution, certification, satellite coordination, and frequency authorization. This request will be matched with \$1.4 million in reimbursements from the federal agencies that use spectrum.

Table Mountain Facility Modernization 40 \$5,243 +5 +\$2,700

NTIA proposes to upgrade the Radio Quiet Zone Test Facility in Colorado. Fundamental to the analysis of telecommunications issues and the management of the federal radio spectrum are the empirical measurements and core research performed at NTIA's Institute for Telecommunication Sciences. This program requires facilities that support the high degree of accuracy and the broad range of information that must be gathered to enable the most efficient use of a scarce resource, the spectrum, by a wide array of applications. This funding will upgrade the Table Mountain site to a viable, modern research facility capable of supporting wireless communications research and other scientific research efforts for many years.

#### **Information Infrastructure Grants**

Technology Opportunities Program Grants 24 \$15,609 -21 -\$15,385

The Technology Opportunities Program demonstrated the use of advanced telecommunications technologies to enhance the delivery of social services, such as education, health care, and public safety. This program has fulfilled its mission and is proposed for termination. FY 2003 funds as well as funds remaining from deobligations and unobligated balances, are requested for monitoring existing grants and closeout costs.

## **Targets and Performance Summary**

Performance Goal 1: Promote competition within the telecommunications sector and promote universal access to telecommunications services for all Americans

	FY 1999 Target	FY 1999 Actual	FY 2000 Target	FY 2000 Actual	FY 2001 Target	FY 2001 Actual	FY 2002 Target	FY 2003 Target		
Broadband deployment: See	Broadband deployment: See rationale for performance goal for explanation									
Market-based incentives: See rationale for performance goal for explanation										
International trade in telecon	mmunication	s: See ration	ale for perfe	ormance go	al for expla	nation				
Privatization of Internet man	nagement: Se	e rationale f	or performa	ince goal for	r explanatio	n				
Internet services and content regulations: See rationale for performance goal for explanation										
Policy Customer Survey	New	New	New	New	New	New	New	50 customers		

Performance Goal 2: Ensure that the allocation of radio spectrum provides the greatest benefit to all people

	FY 1999 Target	FY 1999 Actual	FY 2000 Target	FY 2000 Actual	FY 2001 Target	FY 2001 Actual	FY 2002 Target	FY 2003 Target
Timeliness of Processing	New	Five Business Days						
Percentage of Requests Accomplished Online	New	50%						
Completeness and Accuracy of Agency Assignment Request	New	85%						
Customer Satisfaction Survey on Training Course	New	90% Satisfactory or Better						
Number of New Agency- requested Spectrum Assignment Actions	New	80,181	80,000	90,615	91,000	113,654	91,000	N/A

## Performance Goal 3: Promote the availability, and support new sources, of advanced telecommunications and information sorvices

	FY 1999 Target	FY 1999 Actual	FY 2000 Target	FY 2000 Actual	FY 2001 Target	FY 2001 Actual	FY 2002 Target	FY 2003 Target
Timeliness of Grant Awards	New	100%						
Percentage of the United States Covered by Public Broadcasting Signals	New	95% TV 90% Radio						
Quality of Basic Research as Reflected in Peer- reviewed Publications	New	5 Publications						
Level of Technology Transfer Activities Conducted with the Private Sector through the Cooperative Research and Development Agreements	New	5 Cooperative Research and Development Agreements						
Number of Models or Grants Available for Nonprofit or Public- sector Organizations	43	43	50	35	80	74	30	N/A

**Resource Requirements Summary** (Dollars in Millions. Funding amounts reflect total obligations.) Information Technology (IT) Full-Time Equivalent (FTE)

Performance Goal 1: Promote competition within the telecommunications sector and promote universal access to telecommunications services for all Americans

	FY 1999 Actual	FY 2000 Actual	FY 2001 Actual	FY 2002 Available	FY 2003 Base	Increase/ Decrease	FY 2003 Request
Salaries and Expenses	10.9	9.0	9.3	12.5	13.1	0.0	13.1
Domestic and	4.0	3.6	3.7	4.1	4.6	0.0	4.6
International Policies							
Spectrum	5.2	0.0	0.0	0.0	0.0	0.0	0.0
Management							
Telecommunication	1.7	5.4	5.6	8.4	8.5	0.0	8.5
Sciences Research							
Total Funding	10.9	9.0	9.3	12.5	13.1	0.0	13.1
IT Funding <sup>1</sup>	0	1.5	1.5	1.6	1.6	0.0	1.6
FTE	84	81	79	114	114	0.0	114

Performance Goal 2: Ensure allocation of radio spectrum provides the greatest benefit to all people

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Increase/	FY 2003
	Actual	Actual	Actual	<b>Available</b>	Base	Decrease	Request
Salaries and Expenses	17.7	19.3	21.5	23.6	24.9	+5.8	30.7
Domestic and	0.1	0.1	0.1	0.1	0.1	0.0	0.1
International Policies							
Spectrum	15.8	17.2	19.3	19.2	21.4	+3.1	24.5
Management							
Telecommunication	1.8	2.0	2.1	4.3	3.4	+2.7	6.1
Sciences Research							
Total Funding	17.7	19.3	21.5	23.6	24.9	+5.8	30.7
IT Funding <sup>1</sup>	0	2.4	3.2	3.4	3.4	0.0	3.4
FTE	134	132	133	135	136	+14	150

#### Performance Goal 3: Promote the availability, and support new sources, of advanced telecommunications and information services

	FY 1999 Actual	FY 2000 Actual	FY 2001 Actual	FY 2002 Available	FY 2003 Base	Increase/ Decrease	FY 2003 Request
Public Telecommunications Facilities Planning and Construction	23.6	27.5	44.2	51.7	43.6	0.0	43.6
Grants	21.7	25.7	42.0	49.3	41.1	0.0	41.1
Program Management	1.9	1.8	2.2	2.4	2.5	0.0	2.5
Information Infrastructure Grants	21.4	17.7	46.2	15.5	15.6	-15.4	0.2
Grants	17.6	13.8	42.9	12.4	12.4	-12.4	0.0
Program Management	3.8	3.9	3.3	3.1	3.2	-3.0	0.2
Total Funding	45.0	45.2	90.4	67.2	59.2	-15.4	43.8
IT Funding <sup>1</sup>	0	0.6	0.7	0.6	0.6	0.0	0.6
FTE	34	30	32	37	37	-21	16

Discontinued Performance Goal: Minimize the effects of crisis by preparing the U.S. telecommunications and information infrastructure protection programs

mormation initiasulacture protection programs										
	FY 1999	FY 2000	FY 2001	FY 2002	<b>FY 2003 Base</b>	Increase/	Increase/			
	Actual	Actual	Actual	<b>Available</b>		Decrease	Decrease			
Salaries and Expenses	0.4	0.5	0	Discontinued	Discontinued	Discontinued	Discontinued			
Domestic and	0.0	0.0	0	Discontinued	Discontinued	Discontinued	Discontinued			
International Policies										
Spectrum	0.4	0.5	0	Discontinued	Discontinued	Discontinued	Discontinued			
Management										
Telecommunication	0.0	0.0	0	Discontinued	Discontinued	Discontinued	Discontinued			
Sciences Research										
Total Funding	0.4	0.5	0	Discontinued	Discontinued	Discontinued	Discontinued			
IT Funding <sup>1</sup>	0	0	0							
FTE	4	3	0							

#### **Grand Total**

	FY 1999 Actual	FY 2000 Actual	FY 2001 Actual	FY 2002 Available	FY 2003 Base	Increase/ Decrease	FY 2003 Request
Salaries and Expenses	29.0	28.8	30.8	36.1	38.0	+5.8	43.8
Public Telecommunications Facilities Planning and Construction	23.6	27.5	44.2	51.7	43.6	0.0	43.6
Information Infrastructure Grants	21.4	17.7	46.2	15.5	15.6	-15.4	0.2
Total Funding	74.0	74.0	121.2	103.3	97.2	-9.6	87.6
Direct	56.5	56.2	101.8	81.3	73.4	-12.1	61.3
Reimbursable <sup>2</sup>	17.5	17.8	19.4	22.0	23.8	2.5	26.3
IT Funding <sup>1</sup>	0	4.5	5.4	5.6	5.6	0.0	5.6
FTE	256	246	244	286	287	-7	280

<sup>1</sup> IT funding included in total funding

## **Skill Summary**

NTIA employs policy analysts with legal, economics, and technical skills to perform these activities. NTIA does not have a separate budget category for these activities.

<sup>2</sup> Reimbursable funding included in total funding

## **FY 2003 Performance Goals**

# Performance Goal 1: Promote Competition within the Telecommunications Sector and Promote Universal Access to Telecommunications Services for All Americans

## **Corresponding Strategic Goal**

Strategic Goal 1: Provide the information and the framework to enable the economy to operate efficiently and equitably

## **Rationale for Performance Goal**

The telecommunications and information sectors account for approximately 10% of U.S. gross domestic product (GDP). Driven in large part by growth of wireless services and the Internet, this figure is predicted by some experts to approach 20% of GDP by 2004. One of the National Telecommunications and Information Administration's (NTIA's) primary missions is to serve as the President's principal policy advisor on telecommunications and information issues and to be the Administration's primary voice on them. NTIA fulfills this policy-setting role in a number of ways during the course of a year by preparing and issuing a number of special reports on topics that emerge over time by testifying before Congress and other organizations that are concerned with telecommunications policy; providing the Administration's views on actions proposed by the Federal Communications Commission; issuing requests for public comment on specific issues; and encouraging dialogue with the private sector through sponsorship and participation in conferences, workshops, and other forums.

Through FY 2003, NTIA's main policy development activities will focus on:

- Removing impediments to broadband deployment
- Promoting spectrum policies that rely on market-based incentives for efficiently deploying new technologies and addressing consumer needs
- Promoting international trade in telecommunications products and services, promoting consistent approaches to telecommunications policy, and improving relations with Western Hemisphere neighbors
- Continuing progress toward privatization of Internet management
- Examining issues and making recommendations on proposals regarding Internet services and content.

NTIA expects to have a significant role in the public debate on these issues and in the development of policy solutions, but does not have direct responsibility for implementing solutions.

## **Measure 1a: Policy Customer Survey**

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	50 Customers
Actual	New	New	New	New	
Met/Not Met					

FY 2001 APPR and FY 2003 APP

#### **Data Validation and Verification:**

Data source: Customer surveys

Frequency: Annual

**Data storage:** To be determined **Verification:** To be determined

Data limitations: A survey of 50 federal customers should yield useful results for program planning and evaluation. The

sample size will be examined in light of experience with the FY 2003 survey. Actions to be taken: Develop survey methodology and conduct survey

## **Explanation of Measure**

During FY 2002, NTIA will develop a customer survey to be administered in FY 2003 that yields qualitative assessments of NTIA's policy activities. The survey will measure Administration customer perceptions of NTIA's policy priorities, the timeliness of its activities in support of those priorities, and the inclusiveness of NTIA's policy activities. Customers that will be surveyed include the White House, the State Department, other federal agencies, the Technology Administration, the International Trade Administration, and the Office of the Secretary within the Department of Commerce. NTIA intends to survey at least 50 customers on its policy-related activities.

## FY 2001 Program Evaluation for Performance Goal 1: Promote competition within the Telecommunications Sector and Promote Universal Access to Telecommunications Services for All Americans

NTIA conducts weekly meetings and semi-annual strategic planning retreats with senior executives to evaluate progress and to develop and refine program goals. Agency priorities and resource allocations are examined to ensure that resources are devoted to the highest priority goals. These program goals are coordinated with the Secretary of Commerce and the White House. Program evaluations determine whether existing resources are being assigned appropriately to the highest priority issues.

#### **Discontinued Measures**

## Number of Reports, Filings, Testimonies, and Speeches

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	30	30	Discontinued	Discontinued
Actual	New	32	43		
Met/Not Met		Met	Met		

## **Data Validation and Verification:**

Data source: All NTIA's public materials are posted at http://www.ntia.doc.gov

**Frequency:** Materials are posted on the web site as soon as they are released to the public.

Data storage: Data is stored on servers located at NTIA headquarters in the Herbert C. Hoover Building in Washington, D.C.

Verification: Data is manually verified.

**Data limitations:** None **Actions to be taken:** None

## **Explanation of Measure**

This measure was intended to be a proxy for NTIA's policy-related activities. NTIA's attempts to associate a quantitative measure with its policy-related activities have never been particularly successful, nor have they been useful to NTIA or departmental management in assessing these

activities and results. While NTIA plans and establishes policy priorities, many such activities are undertaken at the behest of the Secretary of Commerce and the White House and are inherently unpredictable. Accordingly, NTIA has discontinued this measure and will continue, instead, to devote attention to establishing and assessing agency priorities and accomplishments through regular senior management meetings, the strategic planning process, and customer surveys.

## **Summary Actions Related to Performance Goal 1**

## **Action Plan**

## **Strategies** Activities

- NTIA will file timely comments on behalf of the Administration in relevant Federal Communications Commission proceedings.
- NTIA will develop policy proposals to remove government-imposed obstacles to widespread and economic deployment of Internet access, especially broadband.
- NTIA will hold multiple meetings with industry and opinion leaders on broadband and other key telecommunications policy issues; NTIA will also frequently participate in industry conferences on such issues.
- NTIA will convene regular interagency meetings to assist in development of timely Administration policy positions and proposals on telecom issues.
- NTIA will issue requests for comment on important policy proposals.
- NTIA will focus on removing impediments to broadband deployment and addressing spectrum policy that affects new wireless services; e-commerce, and Internet domain name management are other issues NTIA will address.
- Internationally, NTIA will promote procompetitive U.S. policies, including regulatory reform and technical policies related to advanced technologies and Internet governance.
- NTIA will convene and direct multiple bilateral meetings to discuss telecommunications issues.
- NTIA will assist the State Department in achieving its telecommunication-related targets.
- NTIA will follow through on implementation of 2003 International Telecommunications Union plenipotentiary results.
- NTIA will target hemispheric opportunities for telecommunications trade promotion and policy support.
- NTIA will maintain U.S. relations with European telecommunications ministries.

- NTIA, working in concert with the Economic and Statistics Administration, released a major report, A Nation Online: How Americans are Expanding Their Use of the Internet, which is based on August 2001 census data; NTIA has produced a series of reports over the past four years to document the state of computer and Internet use in our nation.
- In October, 2001, NTIA initiated the Administration's analysis of the regulatory obstacles to ubiquitous availability of competitive broadband services by hosting a large scale broadband forum.
- NTIA solicited comments and made preparations for new management of the .us and .edu domains; the management transfer was accomplished in October 2001.
- NTIA is assisting the General Services Administration in broadening the use of the .gov domain to include State and Local governments.
- New agreements between the Internet Corporation for Assigned Names and Numbers and VeriSign on domain name registries for .com, .net, and .org were reached; they revise agreements that have been in place since November 1999.
- In response to a Congressional mandate, NTIA undertook a study on the effectiveness of delivering to consumers documents on business transactions through electronic mail.
- NTIA and the Federal Trade Commission released a report regarding the consumer consent provision of the Electronic Signatures in Global and National Commerce, which was designed to facilitate use of electronic records and signatures in interstate and foreign commerce and to remove uncertainty about the validity of contracts entered into electronically; in the process of collecting information for this report, NTIA and the Federal Trade Commission held a workshop on April 3, 2001 to explore the impact of a requirement to obtain the consent of consumers to receive information electronically.
- In June 2002, NTIA will begin preparation of a report to Congress evaluating the development of Internet filtering and safety in U.S. educational institutions pursuant to the Children's Internet Protection Act.

## **Cross-cutting Activities**

## **Intra-Department of Commerce**

NTIA supports the Secretary of Commerce on a broad range of telecommunications policy issues. NTIA works with the International Trade Administration on international issues, the Economics and

FY 2001 APPR and FY 2003 APP 357

Statistics Administration on Internet penetration measurements and analysis, and with the Technology Administration on domain name and technology policy issues.

## **Other Government Agencies**

NTIA works with the White House and other federal agencies to develop and coordinate Administration-wide policy statements.

## **Government/Private Sector**

NTIA obtains private-sector views on a broad range of telecommunications and information policy issues through formal proceedings in which public comments are solicited and through public conferences, workshops, and meetings on specific subjects.

## **External Factors and Mitigation Strategies**

Consideration of telecommunications and information policy issues is affected by the activities of independent regulatory agencies (such as the Federal Communications Commission and the Federal Trade Commission) and by priorities established for NTIA by the Secretary of Commerce, the White House, and Congress. The explosive growth of the Internet and its supporting technologies sometimes makes it difficult for government institutions to coordinate timely policy responses. Regular interagency meetings on policy issues will assist in the development of timely Administration positions.

## Performance Goal 2: Ensure that the Allocation of Radio Spectrum Provides the Greatest Benefit to All People

## **Corresponding Strategic Goal**

Strategic Goal 1: Provide the information and the framework to enable the economy to operate efficiently and equitably

## **Rationale for Performance Goal**

The availability of the radio frequency spectrum is key to the development and implementation of innovative telecommunications technologies such as Ultra wideband (UWB) and Third Generation (3G) wireless services. The National Telecommunication and Information Administration's (NTIA's) spectrum management activities are therefore intertwined with its policy activities in that existing uses of spectrum by both the private and federal sectors must be examined to determine where spectrum will be made available for new and innovative spectrum-using services. NTIA manages the federal government's use of spectrum and is involved in a cooperative interagency process with regard to the development of 3G wireless networks. NTIA's activities include (1) identifying and supporting new wireless technologies that promise innovative applications for customers of the federal and private sectors; (2) providing the 56 federal agencies with the spectrum needed to support their missions for national defense, law enforcement and security, air traffic control, national resource management, and other public safety services; (3) developing plans and policies to use the spectrum effectively; (4) satisfying the United States' future spectrum needs globally through participation with the 190 other countries of the International Telecommunication Union in establishing binding treaty agreements through world radio-communication conferences; and (5) improving, through telecommunications research and engineering, the understanding of radio-wave transmission and thereby improving spectrum utilization and the performance of radio-communications systems.

## Measure 2a: Timeliness of Processing

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	Five Business Days
Actual	New	New	New	New	
Met/Not Met					

#### Data Validation and Verification:

Data source: Interdepartment Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Management (OSM)

Frequency: Weekly, monthly, annually

Data storage: Computer Services Division, OSM Verification: Automated Data Processing (ADP) routines

Data limitations: Classified information is not included in public data.

Actions to be taken: Collection of data

## **Explanation of Measure**

NTIA has made substantial improvements over the years in the time required to process frequency assignment actions requested by the federal agencies. This measure will permit NTIA to continue to track improvements in processing time through further automation procedures and logistical procedures. The target for FY 2003 is to have frequency assignment requests processed and placed on

FY 2001 APPR and FY 2003 APP

the IRAC agenda within five business days. The IRAC then will consider those items for approval at its next regularly scheduled meeting.

## Measure 2b: Percentage of Requests Accomplished Online

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	50%
Actual	New	New	New	New	
Met/Not Met					

#### **Data Validation and Verification:**

Data source: IRAC Support Branch, OSM

Frequency: Annual

Data storage: Computer Services Division, OSM

**Verification:** ADP routines

**Data limitations:** Classified information is not available to public.

Actions to be taken: Collection of data

## **Explanation of Measure**

NTIA has made substantial progress over the years in automating the frequency assignment process for federal agencies. This measure will demonstrate the effectiveness of a new, secure, web-based interface for federal agencies to request frequency assignment actions entirely online. The target for FY 2003 is to process 50% of frequency assignment requests online.

## Measure 2c: Completeness and Accuracy of Agency Assignment Request

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	85%
Actual	New	New	New	New	
Met/Not Met					

#### **Data Validation and Verification:**

Data source: IRAC Support Branch, OSM

Frequency: Annual

Data storage: Computer Services Division, OSM Verification: ADP routines and manual inspection

**Data limitations:** Classified information is not available to the public.

Actions to be taken: Collection of data

## **Explanation of Measure**

One way to determine whether NTIA is adequately serving its customers in the spectrum management process is by examining the clarity and ease of use of procedures for customers to file an action request. This measure will indicate whether customers are able to file requests completely and accurately and whether improvements in the customer interface are needed. NTIA's target for FY 2003 is to ensure that 85% of requests are completely and accurately filed. This target will be adjusted if necessary in light of experience.

## Measure 2d: Customer Satisfaction Survey on Training Course

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	90% Satisfactory or Better
Actual	New	New	New	New	
Met/Not Met					

#### Data Validation and Verification:

Data source: OSM

Frequency: Every course conducted

Data storage: OSM

**Verification:** Manual inspection **Data limitations:** None

Actions to be taken: Develop survey

## **Explanation of Measure**

NTIA's Office of Spectrum Management conducts a number of spectrum management training seminars each year for federal spectrum managers and for representatives from foreign administrations. This measure will determine whether the seminar content is useful to participants. During FY 2002, NTIA will develop the survey methodology. NTIA's goal in FY 2003 is to have 90%, or better, of customers give the course a satisfactory rating.

## FY 2001 Program Evaluation for Performance Goal 2: Ensure Allocation of Radio Spectrum Provides the Greatest Benefit to All People

For fiscal year 2001, NTIA processed 113,654 requests for frequency assignment actions as compared with 90,615 in FY 2000. The assignment actions included 22,652 new requests; 47,410 requests for modification of existing assignments; 19,426 requests for deletion of existing assignments; and 24,166 requests for recoordination of previous submissions (revotes). NTIA's management process, which is continually being improved to increase efficiency, has successfully ensured that all assignment requests comply with the rules and regulations and do not cause or receive interference. As of the end of FY 2001, NTIA has authorized 56 federal government agencies 436,829 assignments to operate its radio communications as compared with 439,829 in FY 2000. NTIA continued to maintain and enhance the automated federal spectrum management system under a program begun in 1993. Included in the program is a capability for total electronic transfer of federal spectrum management data and information to include a standard suite of software for use with a personal computer for the federal agencies to technically select spectrum that is interference-free, submit applications for spectrum support, and validate that the spectrum requested is within the rules and regulations governing spectrum authorization. Work continued on an enhanced secure network to accomplish assignments entirely online. To facilitate completeness and accuracy of assignment requests, two one-week spectrum management seminars were held and attended by 68 federal government spectrum managers and their nominated contractors from 17 federal agencies. The course covers a basic introduction to spectrum management, U.S. and international regulatory agencies, spectrum engineering, spectrum management software, satellite communications, land mobile communications, public safety, radio signal propagation, and spectrum planning. A two-week spectrum management course was provided to 20 students from 18 developing countries. The course was taught under the administrative auspices of the United States Telecommunications Training Institute, a nonprofit organization based in Washington, D.C. This was the 19th year that NTIA has taught such a course. NTIA has conducted an annual customer satisfaction survey among its federal agency customers, but the survey was not performed in FY 2001 due to the diversion of staff resources to respond to post-September 11 demands for spectrum support. The customer survey will be resumed in FY 2002.

## **Discontinued Measures**

## Number of New Agency-requested Spectrum Assignment Actions

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	80,000	91,000	91,000	Discontinued
Actual	80,181	90,615	113,654		
Met/Not Met		Met	Met		

#### **Data Validation and Verification:**

Data source: Government Master File (GMF) of frequency assignments

Frequency: Monthly updates

Data storage: GMF is stored on a mission critical system and is issued monthly to federal agencies on compact disk.

Verification: GMF has built in checks and receives extensive program staff review.

**Data limitations:** None

Actions to be taken: Measure spectrum assignment actions

## **Explanation of Measure**

This measure was intended to cover the broad array of spectrum management activities. NTIA included, among other things, the average time required to process spectrum assignments when reporting internally on annual performance results. By FY 2003, NTIA will replace the spectrum assignment total number measure with new measures on timeliness of processing, percentage of requests accomplished entirely online, and the completeness and accuracy of agency assignment requests. NTIA will also resume reporting on its annual customer satisfaction surveys.

## **Summary Actions Related to Performance Goal 2**

## **Action Plan**

**Strategies** Activities

- NTIA's work on wireless technology is focused on finding spectrum that might be made available for next generation commercial mobile services. This involves a number of practical challenges: (1) a process for bridging the bifurcation of spectrum management responsibility between the Federal Communication Commission (FCC) and NTIA; (2) a process for evaluating the viability of sharing government spectrum with commercial uses; (3) a process for finding a suitable new home and migration path for government uses if relocation or "band clearing" is used; (4) a mechanism for addressing the costs of spectrum sharing or relocation; (5) the match up of government spectrum opportunities with global and FCC allocation decisions; and, (6) a method of ensuring that the Department of Defense and homeland security needs are addressed.
- NTIA will complete analysis, development, advocacy, and implementation of Administration ultra wideband (UWB) policy utilizing customer inputs and through active and timely participation in FCC UWB dockets.
- NTIA will analyze, develop, and advocate
   Administration spectrum management policy utilizing
   customer surveys and through active and timely
   participation in FCC dockets.
- Accommodating Third Generation Mobile Systems--this report was a response to a Presidential memorandum dated October 13, 2000 that stated the need and urgency for the United States to select radio frequency spectrum to satisfy the future needs for advanced mobile wireless systems. The report incorporated a Department of Defense (DOD) technical report on the interference analyses performed for DOD systems sharing with third generation (3G) systems in the 1755-1850 megahertz band. Extensive interaction with the commercial sector was accomplished via a series of outreach meetings sponsored by both NTIA and the private sector. As a result of this report, the FCC and NTIA developed a mutually agreeable plan to determine the viability of providing the 1710-1770 and 2110-2170 megahertz bands for future 3G services.
- WRC (World radio-communication conference) 2003
  Preparation--during 2001, NTIA performed technical
  preparations for the next International
  Telecommunication Union (ITU) WRC in June 2003 in
  Caracas, Venezuela. To prepare these studies, NTIA
  participated in the seven ITU radio-communication
  sector study groups and a myriad of related working
  parties and task groups. This resulted in the
  completion of a full set of U.S. preliminary views on

**Strategies** Activities

- NTIA will investigate and promote hemispheric cooperation in the international arena, especially with Canada and South American nations. NTIA will also support the Secretary's outreach to other targeted countries.
- NTIA will successfully perform technical preparations for the FY 2003 ITU conferences.
- NTIA will continue to prepare for the next ITU World Radio-communication Conference (WRC-03) in June 2003 in Caracas, Venezuela.
- NTIA will complete and submit Congressionally mandated reports in a timely manner.
- NTIA will provide timely and thorough responses to General Accounting Office investigative requests for spectrum management information.
- NTIA's spectrum frequency assignments will continue to be conducted through IRAC, which meets to consider pending actions.
- NTIA will develop new performance measures for spectrum management including timeliness, completeness, and accuracy throughout the assignment process.
- NTIA will initiate a comprehensive inquiry into spectrum management principles and processes to make better and more efficient use of the radio spectrum.

- the 40 conference agenda items and several initial draft U.S. proposals. NTIA has also participated in delegations to the Inter-American Telecommunications Commission to seek support for U.S. positions. Key issues at this conference include Global Positioning System (GPS) sharing spectrum with other radio navigation systems, identification of harmonized bands for public protection, and procedures for improving satellite notification.
- Federal government spectrum management training-two one-week spectrum management seminars were held and attended by 68 federal government spectrum managers and their nominated contractors from 17 federal agencies. The course covers a basic introduction to spectrum management, U.S. and international regulatory agencies, spectrum engineering, spectrum management software, satellite communications, land mobile communications, public safety, radio signal propagation, and spectrum planning.
- Accommodation of UWB technology project--this effort seeks ways to safely accommodate the promising new UWB technology without seriously affecting critical radio-communication services. The analysis of these novel waveforms requires technical acumen in electromagnetic theory and practice and reveals the relationship between UWB modulation and a receiver bandwidth in interference. Six formal, detailed reports were completed during the year. They provide all of the information needed to understand UWB signals and how to measure them in any bandwidth for the first time anywhere. The work forms the cornerstone for national regulatory policies for UWBs.
- Frequency assignment requests—for fiscal year 2001, NTIA processed 113,654 requests for frequency assignment actions as compared to 90,615 in FY 2000. The assignment actions included 22,652 new requests; 47,410 requests for modification of existing assignments; 19,426 requests for deletion of existing assignments; and 24,166 requests for recoordination of previous submissions (revotes). NTIA's management process, which is continually being improved to increase efficiency, has successfully ensured that all assignment requests comply with the rules and regulations and do not cause or receive interference. As of the end of FY 2001, NTIA has authorized 56 federal government agencies 436,829 assignments to operate radio communications as compared to 439,829 in FY 2000.
- Emergency support operations--the events of September 11, 2001 required NTIA's OSM to support the White House and to provide staff working in 24hour shifts to provide direct assignment support for the World Trade Center and the Pentagon incidents during the period of September 12 through September 30. Emergency frequency assignments were provided to agencies such as the White House (White House Communications Agency), DOD, the Federal Emergency Management Agency, Interior Department, Justice Department, and the Treasury Department. Frequencies were also provided to the FCC for the American Red Cross to use in support of their operations at the World Trade Center.

## **Cross-cutting Activities**

## **Intra-Department of Commerce**

NTIA participates with the Technology Administration and National Oceanic and Atmospheric Administration within the Department of Commerce on the Interagency GPS Executive Board, which with DOD jointly manages the GPS satellite program as a national asset.

## **Other Government Agencies**

NTIA authorizes spectrum assignments for 56 federal government agencies to operate radio-communications systems. NTIA works with the 23 other major spectrum using federal agencies on IRAC to manage frequency assignment requests. NTIA represents the interests of 33 other agencies on the IRAC. Uses of shared frequency bands are coordinated with the FCC. International bodies, in which NTIA participates as the U.S. representative, establish permissible uses of frequency bands.

#### **Government/Private Sector**

NTIA coordinates on spectrum management issues through advisory committees and special information-sharing initiatives. Information on these activities may be found at http://www.ntia.doc.gov/osmhome/osmhome.html.

## **External Factors and Mitigation Strategies**

Congress, from time to time, has required some changes in federal use of radio frequency spectrum, which can affect availability of frequencies to suit federal needs. The speed of development and implementation of wireless technologies will affect the level and type of demand by federal agencies for certain frequencies.

## Performance Goal 3: Promote the Availability, and Support New Sources, of Advanced Telecommunications and Information Services

## **Corresponding Strategic Goal**

Strategic Goal 2: Provide infrastructure for innovation to enhance American competitiveness

## **Rationale for Performance Goal**

In addition to its policy-related activities, the National Telecommunications and Information Administration (NTIA) supports innovative telecommunications and information technologies through a grant program and through basic research performed at its laboratory, the Institute for Telecommunication Sciences (ITS). NTIA's Public Telecommunications Facilities Program (PTFP) provides grants to public television and radio stations as well as distance-learning projects. A growing proportion of the public television grants support conversion to digital broadcasting, which has implications for the digital conversion of all television broadcasting and the potential availability of analog broadcasting spectrum for new telecommunications and information services. ITS performs extensive basic research on quality of digital speech, audio and video compression, and transmission characteristics. This research has the potential to improve both the performance of telecommunications networks and the availability of digital content on the Internet. Basic research at ITS also supports U.S. positions in international standard-setting bodies and NTIA's development of Administration policies related to the introduction of new technologies, such as ultra wideband (UWB) and third generation (3G) wireless services.

## **Performance Measurement in FY 2003**

Because the basic research performed at ITS is not amenable to numerical measures and the number and size of PTFP grants awarded cannot be known until grant applications are actually received and processed, NTIA has chosen not to associate a numerical measure for this performance goal. ITS management will assess performance by the adoption of U.S. positions in standard-setting bodies by the publication of peer-reviewed research results and by the promotion of technology transfer to the private sector through Cooperative Research and Development Agreements (CRADAs). NTIA management will assess PTFP activities by the timeliness of grant awards, by the percentage of total awards going to digital television conversion, and by the number of people in unserved areas in the United States who will receive public radio or television signals for the first time.

#### Measure 3a: Timeliness of Grant Awards

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	100%
Actual	New	New	New	New	
Met/Not Met					

Data Validation and Verification:

Data source: PTFP Frequency: Annual Data storage: PTFP

Verification: Awards are posted on the public web site when made

**Data limitations:** None

Actions to be taken: Collection of data

## **Explanation of Measure**

PTFP has a number of steps to accomplish in each grant round before making awards near the end of the fiscal year. These include preparation of the application package, initial review of applications, engineering and outside review of applications, and rating and recommendations for grant applications. This measure permits the program to determine whether its procedures are working adequately for the timely award of grants. The target for FY 2003 is to make 100% of awards by September 30, 2003.

Measure 3b: Percentage of the United States Covered by Public Broadcasting Signals

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	>95% TV >90% Radio
Actual	New	New	New	New	
Met/Not Met					

#### **Data Validation and Verification:**

Data source: PTFP Frequency: Annual Data storage: PTFP

**Verification:** Manual inspection

**Data limitations:** Depends on data from the Federal Communications Commission **Actions to be taken:** Inspection of United States covered by pubic broadcasting signals

## **Explanation of Measure**

One of the primary goals of the PTFP is to bring public radio or public television signals to unserved areas. This measure will indicate how well the program is meeting that goal. The target for FY 2003 is to improve upon the current public broadcasting coverage of 90% radio and 95% TV in the United States

Measure 3c: Quality of Basic Research as Reflected in Peer-reviewed Publications

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	Five Publications
Actual	New	New	New	New	
Met/Not Met					

#### **Data Validation and Verification:**

Data source: ITS Frequency: Annual

**Data storage:** NTIA/ITS website. **Verification:** Inspection

**Data limitations:** None

Actions to be taken: Inspection of research publications

## **Explanation of Measure**

One measure of the quality of basic research programs is the number of peer-reviewed articles that are published in technical journals and publications. This measure will indicate the reception of

research results within the spectrum research and engineering community. The target for FY 2003 is five peer-reviewed articles.

## Measure 3d: Level of Technology Transfer Activities Conducted with the Private Sector through CRADAs

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	New	5 CRADAs
Actual	New	New	New	New	
Met/Not Met					

#### Data Validation and Verification:

Data source: ITS Frequency: Annual

Data storage: ITS administrator Verification: Inspection Data limitations: None

Actions to be taken: Inspection of transfer activities

## **Explanation of Measure**

CRADAs based upon the Federal Technology Transfer Act of 1986 are the principal means of aiding the private sector through ITS's spectrum research and engineering activities. This measure will provide an indication of the utility of these activities to the private sector. The target for FY 2003 is five CRADAs.

# FY 2001 Program Evaluation for Performance Goal 3: Promote the Availability, and Support New Sources, of Advanced Telecommunications and Information Services

In July 2001, NTIA released *Evaluation Report: Technology Opportunities Program--1996-1997 Projects*, a survey conducted by Johnson & Johnson Associates of Fairfax, Virginia. The report summarizes findings related to 42 Technology Opportunities Program (TOP) projects funded during 1996 and 1997 and completed and no longer receiving funds as of June 2000. The study assesses the impact the projects had at the national and local levels and examines how they evolved.

TOP also posted Exemplary TOP Evaluations on its public web site. These evaluations illustrate research and evaluation reports conducted by a broad range of TOP grantees. They include projects from community networking, health, lifelong learning, and public safety. The reports have been prepared by a variety of evaluators, ranging from independent university specialists to individual and internal staff evaluators. Some of the evaluations are large and detailed, others smaller, but just as effective. Described are reviews of the problems, details on how problems were solved, conclusions about the projects, and recommendations for improvement. All provide useful information to those interested in replicating the projects. TOP now has evaluation reports (and the accompanying case studies) for the 1994, 1995, 1996, and 1997 grantees.

Finally, TOP has developed a web-based performance reporting system that will greatly enhance the program's ability to collect relevant data, monitor project progress, and conduct ongoing analyses of projects and their effects. The performance reporting system incorporates questions specifically related to TOP's objectives for the standard government reports filed by applicants. By collecting results data from the field in a structured format, the program can better aggregate and assess the information provided by the different projects.

## **Discontinued Measures**

## Number of Models or Grants Available for Nonprofit or Public-sector Organizations

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	43	50	80	30	Discontinued
Actual	43	35	74		
Met/Not Met	Met	Not Met	Not Met		

#### **Data Validation and Verification:**

Data source: NTIA's grant awards are made annually, and information on all applicants and recipients is posted on the NTIA web site at http://www.ntia.doc.gov.

Frequency: Annual

**Data storage**: Data is stored on servers located at NTIA headquarters in the Herbert C. Hoover Building in Washington, D.C. **Verification**: Data on grants awarded can be verified by the Department of Commerce's Office of Financial Management.

**Data limitations:** None

Actions to be taken: Survey of grants

## **Explanation of Measure**

This measure reflected the number of grants by NTIA's TOP. No funding has been requested for the program for FY 2003. NTIA staff will continue to monitor existing grantees, assist the Inspector General and Office of Financial Assistance in conducting audits, and process the required reporting and closeout procedures. In FY 2001, NTIA funded fewer projects than anticipated because the amount funded per project was larger than projected. The FY 2002 target has been decreased to reflect a lower budget request. There is no target for FY 2003. NTIA staff will continue to monitor existing grantees for compliance with grant terms through required reporting and closeout procedures. The Inspector General may also conduct audits of grantees. By FY 2003, NTIA will replace this measure with ones related to timeliness of grant awards, percentage of the United States covered by public broadcasting signals, quality of basic research as reflected in peer-reviewed publications, and the level of technology transfer activities conducted with the private sector through CRADAs.

## **Summary Actions Related to Performance Goal 3**

## **Action Plan**

NTIA's expertise in broadband digital services and radio-based technologies and knowledge of telecommunications and information markets, network innovations, and regulatory environment will enable NTIA to initiate and manage basic telecommunications research useful in the development of private sector innovations through publication and technology transfer activities.

- PTFP grants will support successful digital conversion by public television stations and extension of public broadcast signals to unserved areas of the United States
- The research performed by ITS will support NTIA's policy activities related to the introduction of new telecommunications technology such as UWB and 3G wireless services.

#### Activities

- Research--ITS has provided extensive support for NTIA's policy development activities related to availability and suitability of spectrum for the introduction of UWB and 3G wireless services.
- Publications--ITS published seven peer-reviewed technical reports on digital voice quality assessment, performance of UWB transmission systems, and development of a web-based telecommunications glossary.
- TOP grants--NTIA awarded \$42.8 million in TOP grants to 74 nonprofit organizations, including state and local governments, across the country and in Puerto Rico. Services provided by this year's grant winners include telemedicine (videoconferencing with translation and interpretation tools, access for the deaf and hard of hearing); public safety (fire incident reporting, beach safety, and community policing); distance learning (job

**Strategies** Activities

- The research performed by ITS will support NTIA's domestic and international policy development activities and the adoption of U.S. positions in international standard-setting and regulatory bodies.
- ITS will publish research results in peer-reviewed articles for technical journals.
- NTIA will successfully, efficiently, and in a timely manner wind down the TOP grant program in FY 2003.
- TOP will continue to audit the performance of existing grantees and will conduct timely closeouts in FY 2003 and beyond.
- training, access to health benefits, and access to local history and culture); community information (affordable housing and public housing); as well as numerous other innovative services.
- PTFP grants--NTIA awarded \$42.0 million in PTFP grants to public broadcasting stations across the country. The grants will be matched by more than \$68 million raised by the recipients. Of the 105 total grants, 52 awards, totaling nearly \$35 million, will be used to assist 76 public television stations to complete federally mandated conversions to digital technology. Eleven television awards will help stations replace basic equipment. NTIA awarded 63 grants, totaling \$37.4 million, to public television stations; 36 grants, totaling \$2.7 million, to public radio stations; five distance-learning grants, totaling \$1.4 million; and one grant to the University of Hawaii for \$475,000 for the Pan-Pacific Educational and Cultural Experiments by Satellite project.

## **Cross-cutting Activities**

NTIA works closely with the Office of the Secretary of the Department of Commerce and with the White House in determining funding priorities for each annual grant round.

## **Intra-Department of Commerce**

NTIA works closely with the Office of the Secretary of the Department of Commerce in determining funding priorities for each annual grant round, to establish rules and procedures for the grant program, and to administer the program. NTIA's PTFP and the National Oceanic and Atmospheric Administration jointly support the Pan-Pacific Educational and Cultural Experiments by Satellite program.

## **Other Government Agencies**

NTIA works closely with the White House in determining funding priorities for each annual grant round. ITS conducts research under contract for a wide variety of federal agencies, including the Departments of Defense and Transportation.

#### **Government/Private Sector**

Panels of reviewers drawn from the private sector and other government entities evaluate grant proposals. PTFP consults with the Corporation for Public Broadcasting on funding priorities and to eliminate duplication of effort. ITS conducts extensive technology transfer activities through CRADAs with private sector entities.

## **External Factors and Mitigation Strategies**

The number of grants that can be awarded in each grant round is determined in large part by the amount of funds appropriated for the grant program.

## **Discontinued Goal**

## Performance Goal: Minimize the Effects of Crisis by Preparing the U.S. Telecommunications and Information Infrastructure Protection Programs

This performance goal and the associated measures will be discontinued beginning in FY 2002.

## **Rationale for Performance Goal**

NTIA has discontinued this performance goal due to lack of funding. NTIA continues some Critical Infrastructure Protection program activities but not at a level sufficient to warrant a performance measure.

#### **Discontinued Measures**

## Increase the Number of State, City, and County Governments Actively Engaged in Critical Infrastructure Protection Programs

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	Discontinued	Discontinued
Actual					
Met/Not Met					

#### **Data Validation and Verification:**

Data source: Department of Defense and NTIA's Institute for Telecommunication Sciences and Spectrum Management

evaluation reports **Frequency:** Annually

Data storage: Agency headquarters Verification: Agency records Data limitations: None Actions to be taken: None

## **Explanation of Measure:**

NTIA has discontinued this measure due to lack of funding.